

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1 –11. (canceled)

12. (currently amended) A link state database (LSDB) search unit that is provided in an interface that processes a packet that is input via an input channel, provided in a packet transfer device, comprising:

a unit that collects received information using a control packet of a routing protocol;

a unit that stores at least a portion of items in the received information collected; [[and]]

a unit that searches LSDBs using TCAM; and

a unit that compares the stored information and information on the at least a portion of item in newly received information collected by the collecting unit to determine whether the newly received information is new or old.

13. (original) The LSDB search unit according to claim 12, further comprising a unit that, upon an arrival of a newly arrived control packet containing the newly received information, transfers the newly arrived control packet containing the newly received information to a routing device when information on the at least a portion of item in the newly received information is newer than the information stored based on the

decision made by the comparing unit, and discards the newly arrived control packet containing the newly received information when the information on the at least a portion of item in the newly received information is as old as or older than the information stored.

14. (original) The LSDB search unit according to claim 13, further comprising a unit that transfers the information on the at least a portion of item in the control packet that has been transferred to the routing device to an LSDB search unit in another interface when the information on the at least a portion of item in the newly received information is newer than the information stored based on the decision made by the comparing unit.

15. (original) The LSDB search unit according to claim 14, further comprising:
a unit that, upon an arrival of a newly arrived control packet containing the newly received information, transfers information on at least a portion of item in the newly arrived control packet containing a newly received information to an LSDB search unit in another interface when the information on the at least a portion of item in the newly received information is newer than the information stored based on the decision made by the comparing unit; and

a unit that stores information on at least a portion of item in a control packet that is transferred from another unit.

16. (currently amended) A storage medium having a computer program used in a link state database (LSDB) search unit that is provided in an interface that processes a packet that is input via an input channel, provided in a packet transfer device, the program, when installed in a computing device, providing the computing device with:

a function that collects received information using a control packet of a routing protocol;

a function that stores at least a portion of the received information collected; [[and]]

a function that searches LSDBs using TCAM; and

a function that compares the stored information and at least a portion of the newly received information collected by the collecting function to determine whether the received information is new or old.

17. (previously presented) The storage medium having a computer program according to claim 16, further providing a function that, upon an arrival of a newly arrived control packet containing the newly received information, transfers the newly arrived control packet containing the newly received information to a routing device when at least a portion of information in the newly received information is newer than the information stored based on the decision made by the comparing function, and discards the newly arrived control packet containing the newly received information when the at least a portion of information in the newly received information is as old as or older than the information stored.

18. (previously presented) The storage medium having a computer program according to claim 17, further providing a function that transfers the at least a portion of the information in the control packet that has been transferred to the routing device to an LSDB search unit in another interface when the at least a portion of the information in the newly received information is newer than the information stored based on the decision made by the comparing function.

19. (previously presented) The storage medium having a computer program according to claim 18, further comprises:

a function that, upon an arrival of a newly arrived control packet containing the newly received information, transfers information on at least a portion of item in a newly arrived control packet containing the newly received information to an LSDB search unit in another interface when the at least a portion of the information in the newly received information is newer than the information stored based on the decision made by the comparing function; and

a function that stores information on at least a portion of item in a control packet that is transferred from another function.

20 – 22. (canceled)